

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listing of claims in the application.

Claim 3 is amended.

Claims 39-41 are canceled.

**Listing of Claims:**

1. (Original) An optical pick-up comprising:  
a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;  
a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;  
a converging optical system for receiving the light beams emitted from the first and second semiconductor laser light sources and for converging the received light beams into a microscopic spot on an optical disk;  
a diffractive element for diffracting the light beam reflected by the optical disk; and  
a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting an electric signal proportional to the amount of the diffracted light,  
wherein the photo detecting portion comprises a photo detecting portion PD0 for receiving a +first order diffracted light from the diffractive element, and wherein a distance  $d_1$  between the center of the photo detecting portion PD0 and the light emitting spot of the first semiconductor laser light source and a distance  $d_2$  between the center of the photo detecting portion PD0 and the light emitting spot of the second semiconductor laser light source substantially satisfy the following relationship:

$$\lambda_1/\lambda_2 = d_1/d_2.$$

2. (Original) An optical pick-up, comprising:  
a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;  
a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;

a converging optical system for receiving the light beams emitted from the first and second semiconductor laser light sources and for converging the received light beams into a microscopic spot on an optical disk;

a diffractive element for diffracting the light beam reflected by the optical disk; and

a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting an electric signal proportional to the amount of the diffracted light,

wherein the photo detecting means comprises a photo detecting portion PD0 for receiving a +first order diffracted light from the diffractive element, and a distance d1 between the center of the photo detecting portion PD0 and the light emitting spot of the first semiconductor laser light source and a distance d2 between the center of the photo detecting portion PD0 and the light emitting spot of the second semiconductor laser light source, and a distance d12 between the light emitting spots of the first and second semiconductor laser light sources satisfy the following relationship:

$$d2 = d1 + d12$$

and substantially satisfy the following relationships:

$$d1 = \lambda 1 \cdot d12 / (\lambda 2 - \lambda 1)$$

$$d2 = \lambda 2 \cdot d12 / (\lambda 2 - \lambda 1) .$$

3. (Currently Amended) An optical pick-up comprising:

a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda 1$ ;

a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda 2$ ;

a converging optical system for receiving the light beams emitted from the first and second semiconductor laser light sources and for converging the received light beam into a microscopic spot on an optical disk;

a diffractive element for diffracting a light beam; and

a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting an electric signal proportional to the amount of the diffracted light,

wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving a diffracted light of the light beam with wavelength  $\lambda 1$  in the diffracted light diffracted by the diffractive element, and a photo detecting portion PD2 for receiving a diffracted light of the light beam with wavelength  $\lambda 2$  in the diffracted light diffracted by the diffractive element,

and the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions respectively, and

wherein when information reproduction is carried out by the use of the light with wavelength  $\lambda_1$ , signals obtained from the regions of the photo detecting portion PD1 are calculated to detect a focus error signal, and when the information reproduction is carried out by the use of the light with wavelength  $\lambda_2$ , signals obtained from the regions of the photo detecting portion PD2 are calculated to detect a focus error signal,

wherein the shape of the photo detecting portion PD1 is different from the shape of the photo detecting portion PD2.

4. (Canceled)

5. (Original) The optical pick-up according to claim 3, wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions by dividing lines, and a symmetrical central line parallel to the dividing line of the photo detecting portion PD2 and a symmetrical central line parallel to the dividing line of the photo detecting portion PD1 are deviated from each other in the direction perpendicular to each symmetrical central line.

6. (Original) The optical pick-up according to claim 3, wherein the first semiconductor laser light source and the second semiconductor laser light source are formed monolithically on one semiconductor chip.

7. (Original) The optical pick-up according to claim 3, further comprising a grating that forms a main beam and a sub-beam that is a  $\pm$ first order diffracted light by receiving a light beam with wavelength  $\lambda_2$  emitted from the second semiconductor laser light source when the wavelength  $\lambda_1$  is set to be in the range from 610 nm to 670 nm, and the wavelength  $\lambda_2$  is set to be in the range from 740 nm to 830 nm,

wherein a grating cross-sectional shape of the grating is substantially rectangular having concave and convex portions, the width of the concave portion and the width of the convex portion are substantially the same, and a level difference  $h$  between the concave portion and the convex portion of the cross sectional shape is represented by the following relationship when  $n_1$

denotes a refractive index of a material of the grating with respect to the wavelength  $\lambda_1$ :

$$h = \lambda_1 / (n_1 - 1), \text{ and}$$

the level difference in an optical path between the concave portion and the convex portion is set to be one wavelength.

8. (Original) The optical pick-up according to claim 7, wherein in both of the light beam with wavelength  $\lambda_1$  and the light beam with wavelength  $\lambda_2$ , a light beam entering an objective lens constituting the converging optical system without being diffracted by the grating, forms grating stripes in the entire range satisfying a NA necessary to the reproduction of the optical disk.
9. (Original) The optical pick-up according to claim 3, wherein the wavelength  $\lambda_1$  is smaller than the wavelength  $\lambda_2$ , and the light emitting spot of the first semiconductor laser light source is arranged substantially on the optical axis of the converging optical system.
10. (Original) The optical pick-up according to claim 3, wherein the diffractive element has a focus error offset reducing region.
11. (Original) An optical disk apparatus comprising an optical pick-up according to claim 3, a moving mechanism for the optical pick-up, and a rotation mechanism for rotating the optical disk.
12. (Original) An optical pick-up comprising:
  - a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;
  - a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;
  - a converging optical system for receiving the light beams emitted from the first and second semiconductor laser light sources and for converging the received light beam into a microscopic spot on an optical disk;
  - a diffractive element for diffracting a light beam reflected by the optical disk; and
  - a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting an electric signal proportional to the amount of the diffracted light,

wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving a –first order diffracted light of the light beam with wavelength  $\lambda_1$  in the diffracted light diffracted by the diffractive element, and a photo detecting portion PD2 for receiving a –first order diffracted light of the light beam with wavelength  $\lambda_2$  in the diffracted light diffracted by the diffractive element; and a distance  $d_1$  between the center of the photo detecting portion PD1 and the light emitting spot of the first semiconductor laser light source and a distance  $d_2$  between the center of the photo detecting portion PD2 and the light emitting spot of the second semiconductor laser light source substantially satisfy the following relationship:

$$\lambda_1/\lambda_2 = d_1/d_2.$$

13. (Original) The optical pick-up according to claim 12, wherein when  $d_{12}$  denotes a distance between the light emitting spot of the first semiconductor laser light source and the light emitting spot of the second semiconductor laser light source, a gap between the center of the photo detecting portion PD1 and the center of the photo detecting portion PD2 is set to be twice  $d_{12}$ .

14. (Original) The optical pick-up according to claim 12, wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions respectively, and when information reproduction is carried out by the use of the light with wavelength  $\lambda_1$ , signals obtained from the regions of the photo detecting portion PD1 are calculated to detect a focus error signal, and when the information reproduction is carried out by the use of the light with wavelength  $\lambda_2$ , signals obtained from the regions of the photo detecting portion PD2 are calculated to detect a focus error signal.

15. (Original) The optical pick-up according to claim 14, wherein the shape of the photo detecting portion PD1 is different from the shape of the photo detecting portion PD2.

16. (Original) The optical pick-up according to claim 14, wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions by dividing lines, and a symmetrical central line parallel to the dividing line of the photo detecting portion PD2 and

a symmetrical central line parallel to the dividing line of the photo detecting portion PD1 are deviated from each other in the direction perpendicular to each symmetrical central line.

17. (Original) The optical pick-up according to claim 12, wherein the first semiconductor laser light source and the second semiconductor laser light source are formed monolithically on one semiconductor chip.

18. (Original) The optical pick-up according to claim 12, further comprising a grating that forms a main beam and a sub-beam that is  $\pm$ first order diffracted light by receiving a light beam with wavelength  $\lambda_2$  emitted from the second semiconductor laser light source when the wavelength  $\lambda_1$  is set to be in the range from 610 nm to 670 nm, and the wavelength  $\lambda_2$  is set to be in the range from 740 nm to 830 nm,

wherein a grating cross-sectional shape of the grating is substantially rectangular having concave and convex portions, the width of the concave portion and the width of the convex portion are substantially the same, and a level difference  $h$  between the concave portion and the convex portion of the cross sectional shape is represented by the following relationship when  $n_1$  denotes a refractive index of a material of the grating with respect to the wavelength  $\lambda_1$ :

$$h = \lambda_1 / (n_1 - 1), \text{ and}$$

the level difference in an optical path between the concave portion and the convex portion is set to be one wavelength.

19. (Original) The optical pick-up according to claim 18, wherein in both of the light beam with wavelength  $\lambda_1$  and the light beam with wavelength  $\lambda_2$ , a light beam entering an objective lens constituting the converging optical system without being diffracted by the grating, forms grating stripes in the entire range satisfying NA necessary to the reproduction of the optical disk.

20. (Original) The optical pick-up according to claim 12, wherein the wavelength  $\lambda_1$  is smaller than the wavelength  $\lambda_2$ , and the light emitting spot of the first semiconductor laser light source is arranged substantially on the optical axis of the converging optical system.

21. (Original) The optical pick-up according to claim 12, wherein the diffractive element has a focus error offset reducing region.

22 (Original) An optical disk apparatus comprising an optical pick-up according to claim 12, a moving mechanism for the optical pick-up, and a rotation mechanism for rotating the optical disk.

23. (Original) An optical pick-up comprising:

a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;  
a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;  
a converging optical system for receiving the light beams emitted from the first and second semiconductor laser light sources and for converging the received light beam into a microscopic spot on an optical disk;

a diffractive element for diffracting a light beam reflected by the optical disk; and  
a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting an electric signal proportional to the amount of the diffracted light,  
wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving a -first order diffracted light of the light beam with wavelength  $\lambda_1$  in the diffracted light diffracted by the diffractive element; a photo detecting portion PD2 for receiving a -first order diffracted light of the light beam with wavelength  $\lambda_2$  in the diffracted light diffracted by the diffractive element; and a photo detecting portion PD0 for receiving a +first order diffracted light of the light beams with wavelength  $\lambda_1$  and wavelength  $\lambda_2$ .

24. (Original) The optical pick-up according to claim 23, wherein when a distance between the center of the photo detecting portion PD0 and the light emitting spot of the first semiconductor laser light source is  $d_1$ , a distance between the center of the photo detecting portion PD0 and the light emitting spot of the second semiconductor laser light source is  $d_2$ , and a distance between the light emitting spots of the first and second semiconductor laser light sources is  $d_{12}$ ,

a distance between the center of the photo detecting portion PD1 and the light emitting spot of the first semiconductor laser light source is  $d_1$ , and a distance between the center of the

photo detecting portion PD2 and the light emitting spot of the second semiconductor laser light source is d2, and

the following relationship is substantially satisfied:

$$\lambda_1/\lambda_2 = d_1/d_2,$$

further the following relationship is substantially satisfied:

$$d_2 = d_1 + d_{12}, \text{ and}$$

the following relationships are substantially satisfied:

$$d_1 = \lambda_1 \cdot d_{12}/(\lambda_2 - \lambda_1)$$

$$d_2 = \lambda_2 \cdot d_{12}/(\lambda_2 - \lambda_1).$$

25. (Original) The optical pick-up according to claim 23, wherein the photo detecting portion PD1, the photo detecting portion PD2 and the photo detecting portion PD0 are divided into a plurality of regions respectively, and when information reproduction is carried out by using the light with wavelength  $\lambda_1$ , signals obtained from the regions of the photo detecting portion PD1 are calculated to detect a focus error signal; when information reproduction is carried out by using the light with wavelength  $\lambda_2$ , signals obtained from the region of the photo detecting portion PD2 are calculated to detect a focus error signal; and signals obtained from the regions of the photo detecting portion PD0 are calculated to detect a tracking error signal.

26. (Original) The optical pick-up according to claim 23, wherein the photo detecting portion PD1, and the photo detecting portion PD2 are divided into a plurality of regions respectively, and when information reproduction is carried out by using the light with wavelength  $\lambda_1$ , signals obtained from the regions of the photo detecting portion PD1 are calculated to detect a focus error signal; and when information reproduction is carried out by using the light with wavelength  $\lambda_2$ , signals obtained from the regions of the photo detecting portion PD2 are calculated to detect a focus error signal, and

wherein the shape of the photo detecting portion PD1 is different from the photo detecting portion PD2.

27. (Original) The optical pick-up according to claim 23, wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions by dividing lines



respectively and when information reproduction is carried out by using the light with wavelength  $\lambda_1$ , signals obtained from the regions of the photo detecting portion PD1 are calculated to detect a focus error signal; and when information reproduction is carried out by using the light with wavelength  $\lambda_2$ , signals obtained from the regions of the photo detecting portion PD2 are calculated to detect a focus error signal and,

wherein a symmetrical central line parallel to the dividing line of the photo detecting portion PD2 and a symmetrical central line parallel to the dividing line of the photo detecting portion PD1 are deviated from each other in the direction perpendicular to each symmetrical central line.

28. (Original) The optical pick-up according to claim 23, wherein the first semiconductor laser light source and the second semiconductor laser light source are formed monolithically on one semiconductor chip.

29. (Original) The optical pick-up according to claim 23, further comprising a grating that forms a main beam and sub-beams that are  $\pm$ first order diffracted light by receiving a light beam with wavelength  $\lambda_2$  emitted from the second semiconductor laser light source when the wavelength  $\lambda_1$  is set to be in the range from 610 nm to 670 nm, and the wavelength  $\lambda_2$  is set to be in the range from 740 nm to 830 nm,

wherein a grating cross-sectional shape of the grating is substantially rectangular having concave and convex portions, the width of the concave portion and the width of the convex portion are substantially the same, and the level difference  $h$  between the concave portion and the convex portion of the cross sectional shape is represented by the following relationship when  $n_1$  denotes a refractive index of a material of the grating with respect to the wavelength  $\lambda_1$ :

$$h = \lambda_1 / (n_1 - 1), \text{ and}$$

the level difference in an optical path between the concave portion and the convex portion is set to be one wavelength.

30. (Original) The optical pick-up according to claim 29, wherein in both of the light beam with wavelength  $\lambda_1$  and the light beam with wavelength  $\lambda_2$ , a light beam entering an objective

lens constituting the converging optical system without being diffracted by the grating, forms grating stripes in the entire range satisfying NA necessary to the reproduction of the optical disk.

31. (Original) The optical pick-up according to claim 23, wherein the wavelength  $\lambda_1$  is smaller than the wavelength  $\lambda_2$ , and the light emitting spot of the first semiconductor laser light source is arranged substantially on the optical axis of the converging optical system.
32. (Original) The optical pick-up according to claim 23, wherein the diffractive element has a focus error offset reducing region.
33. (Original) An optical disk apparatus comprising an optical pick-up according to claim 23, a moving mechanism for the optical pick-up and a rotation mechanism for rotating the optical disk.
34. (Original) An optical pick-up comprising:  
a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;  
a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;  
a converging optical system for receiving the light beams emitted from the first and second semiconductor laser light sources and for converging the received light beam into a microscopic spot on an optical disk;  
a diffractive element for diffracting the light beam reflected by the optical disk; and  
a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting an electric signal proportional to the amount of the diffracted light,  
wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving the light beam with wavelength  $\lambda_1$  in the diffracted light diffracted by the diffractive element; a photo detecting portion PD2 for receiving the light beam with wavelength  $\lambda_2$ , and a photo detecting portion PD0 for receiving the light beams with wavelength  $\lambda_1$  and wavelength  $\lambda_2$ ; and  
wherein when information reproduction is carried out by using the light with wavelength  $\lambda_1$ , signals obtained from the regions of the photo detecting portion PD1 are calculated to detect a focus error signal; when information reproduction is carried out by using the light with

wavelength  $\lambda_2$ , signals obtained from the regions of the photo detecting portion PD2 are calculated to detect a focus error signal; and signals obtained from the regions of the photo detecting portion PD0 are calculated to detect a tracking error signal.

35-38 (Canceled)

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (Original) A semiconductor laser apparatus, comprising  
a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;  
a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;  
and

a photo detecting portion for receiving the light beam and for outputting a signal  
proportional to the amount of the diffracted light,

wherein a distance  $d_1$  between the center of the photo detecting portion PD0 and the light  
emitting spot of the first semiconductor laser light source and a distance  $d_2$  between the center of  
the photo detecting portion PD0 and the light emitting spot of the second semiconductor laser  
light source substantially satisfy the following relationship:

$$\lambda_1/\lambda_2 = d_1/d_2.$$

43. (Original) The semiconductor laser apparatus according to claim 42, wherein the first  
semiconductor laser light source and the second semiconductor laser light source are formed  
monolithically on one semiconductor chip.

44 (Original) The semiconductor laser apparatus according to claim 42, wherein the photo  
detecting portion comprises a photo detecting portion PD1 for receiving light with wavelength  
 $\lambda_1$  and a photo detecting portion PD2 for receiving light with wavelength  $\lambda_2$ , and the photo

detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions and the shape of the photo detecting portion PD1 is different from the shape of the photo detecting portion PD2.

45. (Original) The semiconductor laser apparatus according to claim 42, wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving the light with wavelength  $\lambda_1$  and a photo detecting portion PD2 for receiving the light with  $\lambda_2$ , and

wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions by dividing lines, and a symmetrical central line parallel to the dividing line of the photo detecting portion PD2 and a symmetrical central line parallel to the dividing line of the photo detecting portion PD1 are deviated from each other in the direction perpendicular to each symmetrical central line.

46. (Original) A semiconductor laser apparatus comprising:

a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;

a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;

and

a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting a signal proportional to the amount of the diffracted light,

wherein a distance  $d_1$  between the center of the photo detecting portion PD0 and the light emitting spot of the first semiconductor laser light source, a distance  $d_2$  between the center of the photo detecting portion PD0 and the light emitting spot of the second semiconductor laser light source, and the distance  $d_{12}$  between the light emitting spots of the first and second semiconductor laser light sources satisfy the following relationship:

$$d_2 = d_1 + d_{12}$$

and substantially satisfy the following relationships:

$$d_1 = \lambda_1 \cdot d_{12} / (\lambda_2 - \lambda_1)$$

$$d_2 = \lambda_2 \cdot d_{12} / (\lambda_2 - \lambda_1) .$$

47. (Original) The semiconductor laser apparatus according to claim 46, wherein the first semiconductor laser light source and the second semiconductor laser light source are formed monolithically on one semiconductor chip.
48. (Original) The semiconductor laser apparatus according to claim 46, wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving a light with wavelength  $\lambda_1$  and a photo detecting portion PD2 for receiving a light with wavelength  $\lambda_2$ , and the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions and the shape of the photo detecting portion PD1 is different from the shape of the photo detecting portion PD2.
49. (Original) The semiconductor laser apparatus according to claim 46, wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving the light with wavelength  $\lambda_1$  and a photo detecting portion PD2 for receiving the light with  $\lambda_2$ , and wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions by dividing lines, and a symmetrical central line parallel to the dividing line of the photo detecting portion PD2 and a symmetrical central line parallel to the dividing line of the photo detecting portion PD1 are deviated from each other in the direction perpendicular to each symmetrical central line.
50. (Original) A semiconductor laser apparatus comprising:  
a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;  
a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;  
and  
a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting a signal proportional to the amount of the diffracted light,  
wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving a light beam with wavelength  $\lambda_1$ , and a photo detecting portion PD2 for receiving a light beam with wavelength  $\lambda_2$ ; and a distance  $d_1$  between the center of the photo detecting portion PD1 and the light emitting spot of the first semiconductor laser light source and a

distance  $d_2$  between the center of the photo detecting portion PD2 and the light emitting spot of the second semiconductor laser light source substantially satisfy the following relationship:

$$\lambda_1/\lambda_2 = d_1/d_2.$$

51. (Original) The semiconductor laser apparatus according to claim 50, wherein at least one of the photo detecting portion PD1 and the photo detecting portion PD2 is divided into any one of five strip-shaped regions, four strip-shaped regions and six strip-shaped regions.

52. (Original) The semiconductor laser apparatus according to claim 50, wherein the first semiconductor laser light source and the second semiconductor laser light source are formed monolithically on one semiconductor chip.

53. (Original) The semiconductor laser apparatus according to claim 50, wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions, and wherein the shape of the photo detecting portion PD1 is different from the shape of the photo detecting portion PD2.

54. (Original) The semiconductor laser apparatus according to claim 50, wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions by a dividing line, and a symmetrical central line parallel to the dividing line of the photo detecting portion PD2 and a symmetrical central line parallel to the dividing line of the photo detecting portion PD1 are deviated from each other in the direction perpendicular to each symmetrical central line.

55. (Original) A semiconductor laser apparatus, comprising:  
a first semiconductor laser light source for emitting a light beam with wavelength  $\lambda_1$ ;  
a second semiconductor laser light source for emitting a light beam with wavelength  $\lambda_2$ ;  
and  
a photo detecting portion for receiving the diffracted light diffracted by the diffractive element and for outputting an electric signal proportional to the amount of the diffracted light,

wherein the photo detecting portion comprises a photo detecting portion PD1 for receiving a light beam with wavelength  $\lambda_1$ , a photo detecting portion PD2 for receiving a light beam with wavelength  $\lambda_2$ ; and a photo detecting portion PD0 for receiving both lights with wavelength  $\lambda_1$  and wavelength  $\lambda_2$ ,

wherein when a distance between the center of the photo detecting portion PD0 and the light emitting spot of the first semiconductor laser light source is  $d_1$ , a distance between the center of the photo detecting portion PD0 and the light emitting spot of the second semiconductor laser light source is  $d_2$ , and a distance between the light emitting spots of the first and second semiconductor laser light sources is  $d_{12}$ ,

a distance between the center of the photo detecting portion PD1 and the light emitting spot of the first semiconductor laser light source is  $d_1$ , and a distance between the center of the photo detecting portion PD2 and the light emitting spot of the second semiconductor laser light source is  $d_2$ ,

the following relationship is substantially satisfied:

$$\lambda_1/\lambda_2 = d_1/d_2,$$

further the following relationship is substantially satisfied:

$$d_2 = d_1 + d_{12}, \text{ and}$$

the following relationships are substantially satisfied:

$$d_1 = \lambda_1 \cdot d_{12} / (\lambda_2 - \lambda_1)$$

$$d_2 = \lambda_2 \cdot d_{12} / (\lambda_2 - \lambda_1).$$

56. (Original) The semiconductor laser apparatus according to claim 55, wherein the first semiconductor laser light source and the second semiconductor laser light source are formed monolithically on one semiconductor chip.

57. (Original) The semiconductor laser apparatus according to claim 55, wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions respectively, and the shape of the photo detecting portion PD1 is different from the shape of the photo detecting portion PD2.

58. (Original) The semiconductor laser apparatus according to claim 55, wherein the photo detecting portion PD1 and the photo detecting portion PD2 are divided into a plurality of regions by a dividing line, and a symmetrical central line parallel to the dividing line of the photo detecting portion PD2 and a symmetrical central line parallel to the dividing line of the photo detecting portion PD1 are deviated from each other in the direction perpendicular to each symmetrical central line.

59. (Previously Presented) The optical pick up according to claim 3, wherein when  $d_{12}$  denotes a distance between the light emitting spot of the first semiconductor laser light source and the light emitting spot of the second semiconductor laser light source, a gap between the center of the photo detecting portion PD1 and the center of the photo detecting portion PD2 is set to be substantially twice  $d_{12}$ .